

## SECTION TABLE OF CONTENTS

## DIVISION 01 - GENERAL REQUIREMENTS

## SECTION 01 33 29.37

## LEED (TM) DOCUMENTATION

07/14

## PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 SUBMITTALS
- 1.3 DESCRIPTION
  - 1.3.1 General
  - 1.3.2 Project Composition
  - 1.3.3 Required Achievement
  - 1.3.4 LEED Certification
  - 1.3.5 Design and Construction Credit Responsibilities
  - 1.3.6 LEED Online
  - 1.3.7 ENERGY & SUSTAINABILITY (E&S) RECORD CARD
- 1.4 LEED IMPLEMENTATION PLAN
- 1.5 LEED DOCUMENTATION NOTEBOOK
  - 1.5.1 Content
- 1.6 CREDIT REQUIREMENTS
  - 1.6.1 Materials and Resources Credit 2, Construction Waste Management
  - 1.6.2 Materials and Resources Credit 3, Materials Reuse
  - 1.6.3 Materials and Resources Credit 4, Recycled Content
    - 1.6.3.1 Calculations
    - 1.6.3.2 Substitutions
    - 1.6.3.3 Purchasing Plan
  - 1.6.4 Materials and Resources Credit 5, Regional Materials
    - 1.6.4.1 Calculations
    - 1.6.4.2 Purchasing Plan
  - 1.6.5 Materials and Resources Credit 6, Rapidly Renewable Materials
  - 1.6.6 Materials and Resources Credit 7, Certified Wood
    - 1.6.6.1 Calculations
    - 1.6.6.2 Purchasing Plan
  - 1.6.7 Indoor Environmental Quality Credit 7.2 Thermal Comfort Verification
  - 1.6.8 Innovation in Design Construction Credits
  - 1.6.9 Construction Credits by Designer of Record
  - 1.6.10 Project Photographs

## PART 2 PRODUCTS

## PART 3 EXECUTION

- 3.1 COORDINATION MEETINGS
- 3.2 PLAQUE, CERTIFICATES AND REPORTING
- 3.3 TABLE

-- End of Section Table of Contents --

## SECTION 01 33 29.37

LEED (TM) DOCUMENTATION  
07/14

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

## FOREST STEWARDSHIP COUNCIL (FSC)

FSC STD 01 001 (2000) Principles and Criteria for Forest Stewardship

## U.S. GREEN BUILDING COUNCIL (USGBC)

LEED (2009) Leadership in Energy and Environmental Design(tm) Green Building Rating System for New Construction (LEED-NC)

LEED Reference Guide (2009) LEED Reference Guide for Green Building Design and Construction

AGMBC (2010, 28 Oct 2011 rev) 2010 LEED Application Guide for Multiple Buildings and On-Campus Building Projects Version 2

## 1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

## SD-01 Preconstruction Submittals

LEED Implementation Plan; G, RO

Preconstruction Meeting minutes

## SD-07 Certificates

Pre-Closeout Meeting minutes

## SD-11 Closeout Submittals

LEED Documentation Notebook; G, RO

Closeout Meeting minutes

### 1.3 DESCRIPTION

#### 1.3.1 General

This Specification includes an overview of the project LEED requirements and technical requirements for LEED credits not specified elsewhere. Where the term "LEED credit" is used, it refers to both LEED credits and LEED prerequisites.

#### 1.3.2 Project Composition

[This LEED project is a [single building and site][group project under a single registration]. The LEED Project Boundary is [coincident with construction limits][not coincident with construction limits and is shown on the drawings].

] [This is a LEED Campus project that includes the following separate registrations: [\_\_\_\_\_]. [Coordinate with other contractors providing work for this campus.] LEED Campus Boundary and individual building LEED Project Boundaries are indicated on the drawings. Follow the [AGMBC](#) for LEED documentation. Table 1 indicates which credits apply to each building and which apply to the campus ("Master Site") site work included in this contract.]

[This LEED project includes [sitework][ and ] [building(s) that do not meet LEED Minimum Program Requirements]. The LEED Project Boundary is [coincident with construction limits][ not coincident with construction limits and is shown on the drawings].]

[The following buildings within the LEED boundary will be excluded from LEED documentation in accordance with the [AGMBC](#) instructions: [\_\_\_\_\_].  
] Work outside the LEED boundary is excluded from LEED documentation.

#### 1.3.3 Required Achievement

This project has been designed, and shall be developed, for a sustainable achievement level of [the points indicated in Table 1][certified][silver][gold][platinum] in accordance with [LEED-NC 2009][\_\_\_\_\_]. Table 1 (see Paragraph Table) identifies the LEED credit items that are designed into or otherwise required for this project. No variations or substitutions to the LEED credits identified for this Contract shall be allowed without written consent from the Contracting Officer. If there are problems meeting the full requirements of a LEED credit identified for this project in Table 1, bring this to the attention of the Contracting Officer immediately.

#### 1.3.4 LEED Certification

[This project has been registered at LEED Online and is required to obtain LEED certification. Format and content of the construction documentation shall be in accordance with the [LEED Reference Guide](#) and LEED Online requirements. Collect backup supporting data for construction credits and submit it if requested during certification. Pay certification fee (construction only - split review) and submit project for LEED certification at construction completion. Respond to comments and requests for additional construction data, coordinate as needed with the Designer of Record (DOR) and otherwise support the project certification process in the course of seeking project certification. Design credits documentation and LEED certification Design Review (split review) is provided by others.

Government review of LEED documentation does not relieve the Contractor of responsibility to provide documentation that is acceptable to GBCI.]

[This project has been registered at LEED Online and the Government may seek LEED certification. Format and content of the construction documentation shall be in accordance with the [LEED Reference Guide](#) and LEED Online requirements. Collect backup supporting data for construction credits and submit it if requested during certification. Contractor is not required to pay certification fee or submit project for LEED certification. If the Government applies for certification, respond to comments on construction credits and requests for additional construction data, coordinate as needed with the DOR, and otherwise support the project certification process at no additional cost to the Government. Design credits documentation and LEED certification Design Review (split review) is by others. Government review of LEED documentation does not relieve the Contractor of responsibility to provide documentation that is acceptable to GBCI.]

[This project will not be registered at LEED Online or apply for LEED certification. Validation of credits earned will be accomplished by the Government. Content of construction documentation shall be in accordance with "USACE LEED-NC 2009 Submittals for Unregistered Projects", provided by the Government. A blank sample of this document is available at <http://en.sas.usace.army.mil>. Documentation shall not use LEED Online Forms. Design phase LEED documentation is by others.]

#### 1.3.5 Design and Construction Credit Responsibilities

Some [LEED](#) credits are inherent in the design provided and require no further submittal or documentation. For these credits, notify the Contracting Officer in advance of selection of specified material or use of permissible construction methods that may result in compromise or loss of a required LEED credit. Some [LEED](#) credits are dependent on Contractor material selections or construction practices.

LEED credits identified in Table 1 not inherent in the design provided shall be the responsibility of and documented by the Contractor. Table 1 provides a general summary of applicable credits. Detailed technical and submittal requirements are contained in the LEED Reference Guide and in the technical Sections (though not specifically identified in each occurrence).

When submittals pertaining to LEED compliance are required in the Contract, these submittals shall be separable from the other submitted data and a copy shall be included in the LEED Documentation Notebook in addition to the distribution indicated in the submittal register.

#### 1.3.6 LEED Online

For registered projects, compile LEED documentation at LEED Online. Documentation at LEED Online shall contain up-to-date information through the previous month's work. Project Administrator role in LEED Online will be transferred to Contractor after award and after GBCI Design Review (coordinated by others) is complete. If Design Review is not completed soon after award, Team Manager role will be assigned to the Contractor to provide interim access to LEED Online. Coordinate Project Administrator transfer and names of Government team members to invite (assigned QA/QC role) at the preconstruction meeting. Transfer Project Administrator role to the Government Project Engineer at closeout or after LEED certification. For registered campus projects, see Table 1 for campus

versus individual building credits and document credits in the applicable LEED Online registered project(s). Include the cross-referencing language required by LEED for campus projects in each registered project.

#### 1.3.7 ENERGY & SUSTAINABILITY (E&S) RECORD CARD

Provide completed E&S Record Card for each building at Beneficial Occupancy. Comply with SAS Instructions for Completion of Energy & Sustainability Record Card posted at <http://www.sas.usace.army.mil/About/DivisionsandOffices/EngineeringDivision/EngineeringDesignCriteria.aspx> (a sample E&S Record Card is available at this website). Obtain partially completed original excel file for each building [at LEED Online under PI Form 1] [from Government Project Manager].

#### 1.4 LEED IMPLEMENTATION PLAN

LEED Implementation Plan shall be submitted within 30 days after notice to proceed. The plan, when completed, shall provide a detailed description of the activities that relate to accomplishing project LEED requirements, including construction practices, procurement practices, and proposed submittals and documentation for each LEED credit. Plan shall also include the following:

- a. Name of the individual on the Contractor's staff responsible for ensuring the required LEED credits and prerequisites are earned; ensuring required documentation is complete and correct and posted at LEED Online, if required; serving as LEED Online Project Administrator; coordinating with other contractors; and coordinating LEED certification, if applicable. A responsible LEED Accredited Professional shall be identified.
- b. Copy of proposed contract with Commissioning Authority if required.
- c. Contractor-developed spreadsheets to be used for tracking LEED credits.
- d. List of the plans required for LEED credit. Proposed submittal date for each plan. These shall be added to the LEED Implementation Plan as they are completed.

#### 1.5 LEED DOCUMENTATION NOTEBOOK

Prepare a comprehensive notebook documenting compliance for each LEED credit identified in Table 1. LEED Documentation Notebook shall be formatted to match Table 1 and tabbed for each credit and prerequisite. LEED documentation in the notebook shall contain up-to-date information through the previous month's work and shall remain available on the jobsite for review. The Notebook may be maintained and available for reference electronically if preferred. LEED Online may [not ]serve as a portion of the Notebook. Do not permit completed pages to be altered. If the Contractor fails to maintain the LEED Documentation Notebook as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the Notebook. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of the Notebook. Submit one original hard copy and one electronic version on CD of the notebook at project closeout.

### 1.5.1 Content

Notebook shall include the following:

- a. This Section, including Table 1 and attachments
- b. Approved LEED Implementation Plan
- c. Required LEED documentation as defined by LEED/LEED Online
- d. Backup/support documentation to support credit compliance (whether requested during certification or not)
- e. GBCI correspondence
- f. LEED documentation by the DOR that is posted at LEED Online or, if project is not using LEED Online, furnished by the Government for inclusion in the Notebook.
- g. Completed E&S Record Card
- h. Completed Air Force MILCON Sustainability Requirements Reporting Scoresheet (LEED 2009) A blank of this scoresheet is available at <http://www.sas.usace.army.mil/About/DivisionsandOffices/EngineeringDivision/EngineeringDesignCriteria.aspx>.

## 1.6 CREDIT REQUIREMENTS

LEED credits as identified in Table 1 shall be incorporated and documented as required by the Contract documents and in full compliance with the LEED Reference Guide. LEED credits not identified elsewhere in the Contract documents and those requiring further instruction are specified below. Refer to the LEED Reference Guide for further definitions and requirements.

### 1.6.1 Materials and Resources Credit 2, Construction Waste Management

Project goal is that a minimum of [75] [\_\_\_\_\_] percent of construction waste generated within the LEED boundary shall be diverted from landfill and incineration. See Section 01 57 20.00 10 ENVIRONMENTAL PROTECTION and Section 01 74 19.37 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT for additional information and requirements. Government Installation waste reporting differs from LEED waste diversion reporting in that it includes Contract work outside the LEED boundary and requires reporting of disposition of all waste, including waste that is excluded from diversion calculations.

### 1.6.2 Materials and Resources Credit 3, Materials Reuse

Project goal is that a minimum of [5] [10] [\_\_\_\_\_] percent (by dollar value) of materials and products for the project are salvaged, refurbished, or reused materials and products. See attached spreadsheet for specified salvaged, refurbished, and reused materials with estimated costs and calculated materials percentage. Input actual costs and track cumulative calculations for this credit. [For this credit, performance is measured separately for each building in accordance with the AGMBC and Table 1].

### 1.6.3 Materials and Resources Credit 4, Recycled Content

Select materials so that the sum of post-consumer recycled content value

plus one-half of post-industrial recycled content value constitutes at least [10] [20] [\_\_\_\_\_] percent of the total materials cost for the project.

#### 1.6.3.1 Calculations

Recycled content value of project materials shall be determined by the method described in the [LEED Reference Guide](#). [For this credit, performance is measured separately for each building in accordance with the AGMBC and Table 1].

#### 1.6.3.2 Substitutions

If this requirement conflicts individual technical Section requirements, the Contractor may submit for Government approval proposed alternative products or systems that provide equivalent performance and appearance and have greater contribution to project recycled content requirements. Proposed substitutions shall be submitted with the [LEED](#) Implementation Plan accompanied by product data that demonstrates equivalence.

#### 1.6.3.3 Purchasing Plan

Prepare a recycled content purchasing plan, which shall use the applicable LEED spreadsheet filled in with proposed materials, estimated costs, credit-specific data, and LEED Calculations in order to determine if the planned materials can be expected to achieve the project goal. Plan shall be coordinated with and match required performance measurement indicated in Paragraph "Calculations", above. Submit purchasing plan before purchasing the materials.

### 1.6.4 Materials and Resources Credit 5, Regional Materials

Select materials so that a minimum of [10] [20] [\_\_\_\_\_] percent (by dollar value) of materials and products for the project are extracted, harvested, or recovered, as well as manufactured, within a [500-mile](#) radius of the project site.

#### 1.6.4.1 Calculations

Amount of regional project materials shall be determined by the method described in the [LEED Reference Guide](#). [For this credit, performance is measured separately for each building in accordance with the AGMBC and Table 1].

#### 1.6.4.2 Purchasing Plan

Prepare a regional materials purchasing plan, which shall use the applicable LEED spreadsheet filled in with proposed materials, estimated costs, credit-specific data and LEED calculations in order to determine if the planned materials can be expected to achieve the project goal. Plan shall be coordinated with and match required performance measurement indicated in Paragraph "Calculations", above. Submit purchasing plan before purchasing the materials.

### 1.6.5 Materials and Resources Credit 6, Rapidly Renewable Materials

Project goal is that a minimum of [2.5] [\_\_\_\_\_] percent (by dollar value) of materials and products for the project shall be rapidly renewable. Rapidly renewable materials are made from plants with a 10-year or shorter harvest cycle. See attached spreadsheet for specified rapidly renewable materials

with estimated costs and calculated materials percentage. Input actual costs and track cumulative calculations for this credit. [For this credit, performance is measured separately for each building in accordance with the AGMBC and Table 1].

#### 1.6.6 Materials and Resources Credit 7, Certified Wood

Select materials so that a minimum of [50][\_\_\_\_\_] percent (by dollar value) of permanently installed wood-based materials and products for the project are certified in accordance with **FSC STD 01 001**.

##### 1.6.6.1 Calculations

Amount of FSC-certified project materials shall be determined by the method described in the **LEED Reference Guide**. [For this credit, performance is measured separately for each building in accordance with the AGMBC and Table 1].

##### 1.6.6.2 Purchasing Plan

Prepare a certified wood purchasing plan, which shall use the applicable LEED spreadsheet filled in with proposed materials, estimated costs, credit-specific data and LEED Calculations in order to determine if the planned materials can be expected to achieve the project goal. Plan shall be coordinated with and match required performance measurement indicated in Paragraph "Calculations", above. Submit purchasing plan before purchasing the materials.

#### 1.6.7 Indoor Environmental Quality Credit 7.2 Thermal Comfort Verification

[All activities for this credit will be accomplished by the Government's CA.]

#### 1.6.8 Innovation in Design Construction Credits

[Innovation in Design credit "Exemplary Performance Building Air Barrier" is a construction credit and shall be earned by Contractor. Required submittal is air barrier testing results that comply with specified requirements.]

#### 1.6.9 Construction Credits by Designer of Record

The following construction credits, if included in the project, are documented and submitted for LEED Design Review by the Designer of Record: Sustainable Sites credit 5.1 Site Development - Protect or Restore Habitat, Sustainable Sites credit 7.1 Heat Island Effect - Non-Roof and Energy and Atmosphere credit 5 Measurement and Verification.

#### 1.6.10 Project Photographs

Interior and exterior photographs of completed facility as required by LEED Project Information Form 4 are the responsibility of the Contractor.

## PART 2 PRODUCTS

Not used.



## PART 3 EXECUTION

### 3.1 COORDINATION MEETINGS

There shall be three onsite coordination meetings. The meetings shall be attended by Contractor's designated individual responsible for LEED documentation, Government representative, and Installation representative. Make a set of Contract Drawings and Specifications available for review at each meeting as well as an updated LEED Documentation Notebook. Prepare and submit the minutes for each meeting.

a. The first is a preconstruction meeting to review the LEED Implementation Plan. The requirements for this meeting may be fulfilled during the coordination and mutual understanding meeting outlined in Section 01 45 00.00 10 QUALITY CONTROL.

b. The second is a pre-closeout meeting to review LEED Documentation Notebook for completeness and identify outstanding issues relating to final score and documentation requirements.

c. The third is a closeout meeting to review the final LEED Documentation Notebook. At closeout meeting, a final score for the project will be determined based on review of project performance and documentation. For projects requiring LEED certification, the closeout meeting takes place after certification.

### 3.2 PLAQUE, CERTIFICATES AND REPORTING

For each building certified, provide a full-size (eight inch diameter) engraved bronze LEED certification plaque with polished finish and black background color. Mount the plaque on the building in the location indicated by the Government. Plaque shall indicate the year and the level of certification achieved. For each building certified, provide three original LEED certificates. Notify SAS SDD POC Judy Milton by e-mail when certification is received at judith.f.milton@usace.army.mil. Include in the email the following information for each building certified: Installation, project number, building name and RPUID, rating tool and version, number of points earned, certification level obtained and date of certification. Send completed E&S Record Card by e-mail to USACE Project Manager at Beneficial Occupancy.

### 3.3 TABLE

LEED credits identified in Table 1 below are Contract requirements and shall be incorporated in full compliance with the LEED Reference Guide.

TABLE 1: LEED Points Required [in Addition to the Prerequisites] for [\_\_\_\_\_]

CREDIT NAME	POINTS
[SS1 Site Selection	1]
[SS2 Development Density and Community Connectivity	5]
[SS3 Brownfield Redevelopment	1]
[SS4.1 Public Transportation Access	6]
[SS4.2 Bicycle Storage and Changing Rooms	1]
[SS4.3 Low-Emitting and Fuel-Efficient Vehicles	3]
[SS4.4 Parking Capacity	2]
[SS5.1 Protect or Restore Habitat	1]
[SS5.2 Maximize Open Space	1]
[SS6.1 Stormwater - Quantity Control	1]

<u>CREDIT NAME</u>	<u>POINTS</u>
[SS6.2 Stormwater - Quality Control	1]
[SS7.1 Heat Island Effect - Non-Roof	1]
[SS7.2 Heat Island Effect - Roof	1]
[SS8 Light Pollution Reduction	1]
[WE1 Water Efficient Landscaping	[2] [4]]
[WE2 Innovative Wastewater Technologies	2]
[WE3 Water Use Reduction	[ ]]
[EA1 Optimize Energy Performance	[ ]]
[EA2 On-Site Renewable Energy	[ ]]
[EA3 Enhanced Commissioning	2]
[EA4 Enhanced Refrigerant Management	2]
[EA5 Measurement and Verification	3]
[EA6 Green Power	2]
[MR1.1 Maintain Existing Walls, Floors and Roof	[ ]]
[MR1.2 Maintain 50% of Interior Non-Structural Elements	1]
MR2 Construction Waste Management	[1] [2]
[MR3 Materials Reuse	[1] [2]]
[MR4 Recycled Content	[1] [2]]
[MR5 Regional Materials	[1] [2]]
[MR6 Rapidly Renewable Materials	1]
[MR7 Certified Wood	1]
[IEQ1 Outdoor Air Delivery Monitoring	1]
[IEQ2 Increased Ventilation	1]
[IEQ3.1 Construction IAQ Management During Construction	1]
[IEQ3.2 Construction IAQ Management Before Occupancy	1]
[IEQ4.1 Low Emitting Adhesives and Sealants	1]
[IEQ4.2 Low Emitting Paints and Coatings	1]
[IEQ4.3 Low Emitting Flooring Systems	1]
[IEQ4.4 Low Emitting Composite Wood and Agrifiber	1]
[IEQ5 Indoor Chemical and Pollutant Source Control	1]
[IEQ6.1 Controllability of Lighting Systems	1]
[IEQ6.2 Controllability of Thermal Comfort Systems	1]
[IEQ7.1 Thermal Comfort Design	1]
[IEQ7.2 Thermal Comfort Verification	1]
[IEQ8.1 Daylight	1]
[IEQ8.2 Views	1]
[ID1.1 [name]	1]
[ID1.2 [name]	1]
[ID1.3 [name]	1]
[ID1.4 [name]	1]
ID2 LEED Accredited Professional	1
[RP1.1 [name]	1]
[RP1.2 [name]	1]
[RP1.3 [name]	1]
[RP1.4 [name]	1]

-- End of Section --